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Parasites of Poultry

HOW TO DIP A HEN

Fig. 1—One man holds the bird, preventing the head from getting under water. The nd agitates the feathers so that the dip reaches all parts of the body.

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I. O. SCHAUB, DIRECTOR
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PARASITES OF POULTRY

By Dr. B. F. Kaupp
Head of Poultry Department, N. C. State College

INTRODUCTION

One of the urgent needs of poultry flocks in North Carolina is the control of poultry pests, which means both external and internal parasites. The more common external parasites are mites, lice, scaly leg parasites and stick tight fleas. The more common internal parasites are the large round worm of the small intestine, the small cecal worm, the gizzard worm and the tapeworm.

These parasites destroy flocks or at least make them unprofitable. They interfere with the health and growth of the young, with laying, and also affect the fertility of the egg and the strength of the newly-hatched chicks. That this is a serious problem which needs attention is shown by a survey of fifty farms. Fifty-six per cent of the poultry on these farms were infested by lice, sixty per cent by mites, and fifty-four per cent with scaly leg parasites, to say nothing of internal parasites.

For profitable results a modern poultry house is essential. Such a house is provided with a high, dry floor, an open front ventilation, and horizontal dropping boards provided with perch poles. These perch poles and the nests should be removable so that when parasites, especially mites and lice, infest the house, the perch poles and nests can be removed and thoroughly cleaned and the litter from the floor and nests removed and burned. The droppings should be hauled out to the field.

In cleaning the perch poles and nests, they should be thoroughly painted with some coal tar dip as Zenoleum or Kreso dip. This dip should be put on pure. A paint brush will be found handy in doing this work. If the perch pole supports are nailed to the wall of the house pure dip should be worked thoroughly into the cracks and crevices with the brush so as to kill any parasites hiding there. After the dip has dried on the perch poles and nests they may be again replaced and fresh nesting material put in. Thoroughly spray the balance of the house with a four per cent solution of the dip. Secure a spray pump so that the solution will be driven into all the cracks and crevices of the dropping boards, the walls and floor. To make this solution mix one-third pint of the dip with each gallon of water.

The droppings and other cleanings should always be hauled out t the field as soon as removed from the house or stored in a dry plac where the birds will not have access. On account of worm-infeste ground being a menace, especially to brooder chicks and young growin pullets, it is best to brood and rear the young stock on fresh, clea ground. For this reason it is a good plan to have the houses portabl so they can be moved each year to a new location. It is good practic to locate the houses along the edge of a cotton, corn, or tobacco fiel and allow the birds to run out on the new ground. Under such condi tions the birds are on fresh, uncontaminated ground, and also secur green feeds, worms and bugs.

THE PARASITES

The Chicken Mite

The chicken mite is very small, being only about one-half the siz of a pin head. It is red to bluish in color and moves about rathe rapidly.

Where the Mite Is Found: If the house is not excessively infeste the mites are found in the day time on the under side of the perc poles where they lay their eggs. They come out at night and swarm over the hen, pierce the skin and suck the blood, returning to the perc poles by morning. When these parasites are found by the millions, a may be the case in the hotter months of the year, as July and August they swarm over the walls, dropping boards, perch poles and nest and even get on persons who enter the house. Under such condi tions they are found on the birds at any time.

How to Control: It is good practice to examine carefully the perc poles and nests as well as the hens for parasites. This examinatio should be made in the late winter or early spring and steps taken t rid the bird of these parasites by the time hot weather arrives. Insec parasites, as mites and lice, multiply rapidly in hot weather. For thi reason the clean up of the house, and the eradication of the parasite should be done early in the year. Spray as directed on page 3.

The Feather Mite

The feather mite, also called the tropical mite, is much smaller tha the so-called common chicken mite. It spends its entire life on the bird. It secretes a sticky material and lays its eggs, which hatch in a few days. The young soon grow to full size and are the most serious of all pests. They suck the blood of the birds and kill large numbers of them.

The feather mite may be readily seen by parting the feathers in the ent fluff region.

The means of combating this pest consist of cleaning and disinecting the house as for the chicken mite with the addition that all the irds must be dipped. To do this secure a large wash tub. Fill it threeourths full of water. Measure the water going into the tub. To each gallon of water add one and one-fourth ounces of dip or one-third int to each six gallons of water. Use the solution at a temperature of bout 100° F. Two persons are required to dip a bird. (See Fig. 1.) One person holds the bird's legs with his right hand and with his left and prevents the head of the bird from becoming immersed in the dip. f the solution finds its way into the mouth, it may strangle the bird nd bad results will follow. The second person agitates the feathers o that the dip gets to the skin on all parts of the bird. The feathers f the head, throat and neck must also be made thoroughly wet. It is est to dip only in warm weather, but if it becomes necessary to dip irds in cold weather, a warm room must be used. This heat may be rovided with either oil stoves or coal or wood-burning stoves. The emperature of the room should be kept between 70 and 80° F.

Lice

Poultry lice spend their entire life on the bird, laying eggs called nits, which they cement to the feathers. These nits can be seen as tiny, ight-colored, oval eggs. The eggs hatch in a few days and soon grow o full size. Lice multiply much faster in the hotter parts of the year so that it is a good plan to thoroughly examine the birds of each flock and if lice are present treat the birds and rid the flocks of the parasites while the weather is cold and the number of birds at a minimum. In examining a bird grasp it by the legs with the left hand, put the left foot on a box or other object about a foot high. Rest the body of the bird on the knee and with the right hand pull back the feathers, commencing at the head and proceeding down the body so that one can see to the skin. If lice are present, they will be seen as tiny, light-colored, oval-bodied objects, some of them moving very fast. The nits of the body lice may be observed in masses on the lower fluff region of the feathers. Some lice live on the head and neck only, others on the body of the bird while still others only on the large wing and tail feathers.

The Head and Neck Lice: The head and neck lice may be seen on the top of the head of the young chick and also on the head and neck of the hen. By pressing the throat region of an infested hen between

the thumb and forefinger the eggs or nits may be felt. The lice la their eggs one in a place and cement them to the fluffy part of th feather.

The Body Lice: The body lice are found mostly in the vent fluf region below the tail. Here they may be seen in large numbers an their eggs cemented together in large numbers.

The Depluming Lice: The depluming lice are long and slender an are brownish or brownish-black in color. They are readily seen o white birds, lying partially buried in the web of the feather. Like a lice, they eat the web of the feather, and once on the bird, these lic soon destroy the webs of the feathers, leaving only the mid-ribs or mai stems.

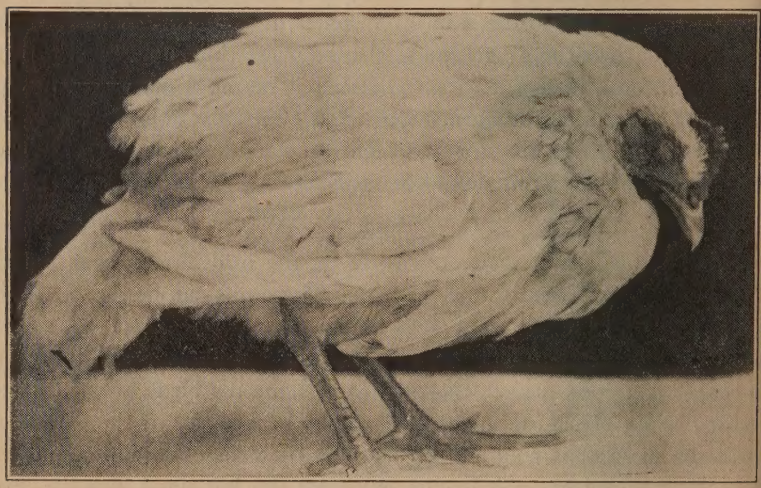

FIG. 2—This seven-weeks-old Single Comb White Leghorn cockerel is attacked by hea lice. Note the unkempt plumage, dark, dried comb, blue face and eyes closed. He is ver sick.

Effects of Lice on Birds: Lice on poultry is a serious matte Large numbers may destroy a whole brood of chicks. They may als kill growing birds and those which are not destroyed may be seriousl stunted in their growth. In Figure 2 is seen a seven-weeks-old Sing Comb White Leghorn cockerel that was attacked by head and neck lice He had been master of the flock, but the lice practically destroyed hi vitality. Several weeks later this cockerel still showed the seriou effects of the lice because they had stunted his growth. Laying hen fall off in the yield of eggs and sitting hens may leave their nests.

What to Do for Lice: Clean and spray the house as for mites. In ddition to this, it is necessary to treat each bird individually. In hot veather the hens may be dipped as recommended for mite control. Dipping during the heavy laying season should be avoided, if possible, ecause it throws the birds off lay for several days, especially if the veather is cold.

Sodium fluoride may be used. Have one person hold the bird over pan which catches any excess powder. Take the amount of powder vhich can be held between the thumb and forefinger and work through he feathers on all parts of the body, neck and head. An excessive mount of the material may be injurious. A good tobacco powder repared for lice control may be used. It is necessary to dust the hen nce every five days until all lice have disappeared. Sitting hens hould be dusted when they are set and once a week thereafter until he brooding period is over.

Scaly Leg Parasites

The condition of scaly legs is shown in Figure 3. The parasite ausing this trouble is so small that it can hardly be seen except under magnifying glass. The parasite burrows under the scales of the hank or unfeathered part of the leg and there, by its gnawing, so irri- ates the part as to cause the formation of scabs as shown in the icture.

What to Do for Scaly Legs: Soak the shanks five minutes in a olution of coal tar dip made by putting one teaspoonful of dip in one int of warm water. Then by scrubbing with a small, stiff brush much f the scaly material may be removed. A sulphur-lard mixture may lso be used, mixing one teaspoonful of sulphur in one-half pint of ight mineral oil and this rubbed on the shank. The following day the xcess is rubbed off with a woolen rag and a very little fresh mixture ubbed on the parts. Dipping in kerosene has been resorted to, but if his method is used one must be careful not to get any oil on the eathers as it will burn and make the birds lame.

The Stick Tight Flea

The stick tight flea is a small, black flea about half the size of the ead of a pin. The flea attaches itself in the skin in the region of the eck and under the side of the wing. For control, use the sulphur and il mixture described under scaly legs. Rub a very little on the parts ffected. These fleas breed in filth. Clean and spray the house as

for mites. With a sprinkling can, spray kerosene on the sand under the house, sheds, barn and trees where the hens wallow.

FIG. 3—These two chicken shanks are in an advanced stage of scaly legs.

The Large Round Worms

In Figure 4 is seen two of the large round worms, natural size, that inhabit the small intestines. The smaller worm is the male, the larger, the female. These worms multiply by laying eggs. The eggs pass out with droppings and in a few days tiny worms develop in them. The eggs now lie dormant and are capable of infesting birds for more than five years. For this reason brooder houses should be moved to new ground where possible and where no manure from the hen house has been thrown or the hens have run. The young pullets should be ranged on fresh ground, placing their houses along the edge of corn,

bacco or cotton fields, and allowing the birds to run out in these ields, finally taking them to the laying houses about the first of Jovember.

These worm eggs are taken in with soiled feed or water. On eaching the stomach and intestines the eggs hatch and the tiny young vorms find their way to the liver and then to the lungs where they emain for about ten days and then pass back to the intestines where, n about two months, they develop to full size. This is why these vorms are very severe on the infested birds.

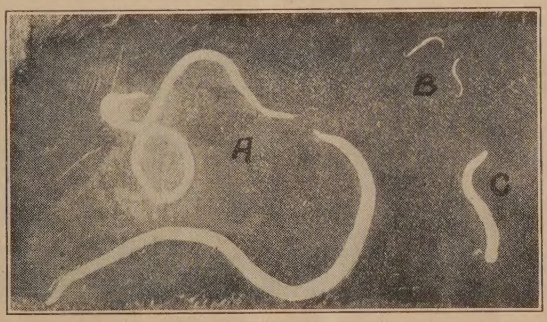

FIG. 4—These worms of the intestines of the chicken are natural size. A, large round orm of the first part of the intestine; B, the small round worm of the blind pouches; C, a ommon tape worm.

Treatment: The old birds have great resistance to round worms. Treat these birds with some form of tobacco. Tobacco extract tablets an be bought on the market. One pound of finely cut tobacco should e steeped in sufficient hot water to mix with six pounds of mash and his given in a trough to one hundred birds, adding one-half pound Epsom salts for each one hundred birds. One per cent of finely pul- erized tobacco to the hundred pounds mash also may be used.

The Small Cecal Worm

The small cecal worm or worm of the blind pouch is shown natural ize in Figure 4 at B. It multiplies by laying eggs as does the large ound worm and the treatment is the same.

The Gizzard Worm

The gizzard worm is about one inch long and cannot be seen until he lining of the gizzard has been peeled out. Then if present it will e seen partly imbedded in the wall of the small end of the gizzard. This worm multiplies as does the small cecal worm and the treatment

is the same as with the large round worm. It is harder for the medi cine to find its way into the structures to this worm.

The Tapeworm

Tapeworms vary in size. Some are almost microscopic and bury themselves in the lining of the bowel and make small lumps as shown in Figure 5. Others are larger as shown in Figure 4, letter C, which shows this worm natural size, while others are still larger. These worms have an intermediate host. By that is meant that they pass a part of their life in another animal. This other animal in water fowls

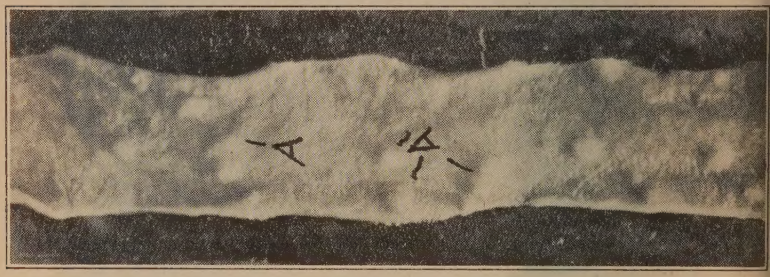

Fig. 5—This is the inside lining of the small intestine of the hen. The small lumps ar caused by a tiny tapeworm scarcely large enough to be seen.

is usually some small water animal as snails and mollusca. In chickens the most common intermediate host is the house fly. The fly eats the egg from the fresh droppings and in this fly there is developed a tiny young worm consisting only of a head and neck. The chicken now eats the fly and gets the tiny tapeworm which becomes full grown in about two months.

Give the birds the same treatment as for the round worms or use one grain of finely pulverized thymol or 15 grains of Kamala to each bird followed with one-half pound of Epsom salts to each 100 birds, dissolving the Epsom salts in the drinking water.